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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/927,175	08/10/2001	Robert A. DiChiaro JR	7784-000171	4647

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EXAMINER

BARR, MICHAEL E

ART UNIT PAPER NUMBER

1762

DATE MAILED 05/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09 927.175

Examiner

Michael Barr

Applicant(s)

D'CHIARA, ROBERT A

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-14, 20, 22-24 and 26-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14, 20, 22-24, and 26-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other

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DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/8/2003 has been entered.

Response to Arguments

2. Applicant's arguments and amendments, filed 5/8/2003, have been fully considered and reviewed by the examiner. In light of the amendments, the rejections to the claims under 35 USC 102 have been withdrawn. The examiner acknowledges the cancellation of Claims 21 and 25. Claims 9-14, 20, 22-24, and 26-33 are pending.

The applicant has argued against the combination of DiChiara and Kourtides stating that there would be no motivation to combine the references, since the Kourtides coating is different than the DiChiara coating and since there is no expectation that improved results would occur by the combination, only equivalent results. The examiner is not persuaded by the applicant's arguments. Kourtides fails to teach that the emissivity modifying agent be a boron compound. The DiChiara reference is merely being applied by the examiner to show that it is known in the art that molybdenum disilicide, silicon carbide, silicon hexaboride, and silicon tetraboride are functionally equivalent as emissivity modifying agents for high temperature ceramics, such as

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those in DiChiara and Kourtides et al. One of ordinary skill in the art reviewing DiChiara and Kourtides would have found it obvious to substitute silicon hexaboride or silicon tetraboride for the molybdenum silicide in the slurry of DiChiara, with the expectation of providing the functionally equivalent emissivity modifying properties to the slurry, since it is suggested by Kourtides that such material are substantially functionally equivalent as emissivity modifying agents for high temperature ceramics. In regards to the argument that the combination would not be expected to yield improved results, a proper combination does not need to yield improved results, only the expected results. The use of conventional materials to perform their known functions in a conventional process is considered obvious (*In re Raner* 134 USPQ 343). Also, the substitution of one known equivalent technique for another may be obvious even if the prior art does not expressly suggest the substitution (*Ex parte Novak* 16 USPQ 2d 2041). This shows that improvement is not required for motivation to combine references. In the present case, the combination of DiChiara and Kourtides is substituting conventional and equivalent emissivity modifying agents to perform their known conventional function and such a combination is obvious and such motivation is proper.

Furthermore, the applicant indicates that there is no recognition in the prior art that the boron containing compound achieves the improved results, as in the applicant's invention. However, as indicated in the previous office action, the applicant has failed to provide claims and evidence commensurate in scope, indicating the argued improvements. Evidence of unobviousness must be commensurate in scope with the claims (*In re Kulling* 14 USPQ 2d 1056, 1058). There is insufficient evidence to indicate unexpected results using materials

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commensurate in scope with the claims. Therefore, the examiner is not persuaded by the applicant's arguments and is maintaining the use of the references as previously set forth.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 9-14, 20, 22, 24, and 26-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiChiara, Jr. et al. in view of Kourtides et al.

DiChiara, Jr. et al. and Kourtides et al. are applied here for the same reasons as given above and in paragraph 5 of the previous office action.

5. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over DiChiara, Jr. et al. in view of Kourtides et al. and Baker et al.

DiChiara, Jr. et al., Kourtides et al., and Baker et al. are applied here for the same reasons as given above and in paragraph 6 of the previous office action.

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Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Barr whose telephone number is 703-305-7919. The examiner can normally be reached on Monday-Thursday 6:00 am-4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on 703-308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 or 703-305-5408 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Michael Barr
Primary Examiner
Art Unit 1762

MB
May 22, 2003